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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/703,723	11/02/2000	Srithar Ramesh	219.39043X00	2135

20457 7590 01/08/2002

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EXAMINER

BETTENDORF, JUSTIN P

ART UNIT PAPER NUMBER

2817

DATE MAILED: 01/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/703,723

Applicant(s)

RAMESH, SRITHAR

Examiner

Justin P. Bettendorf

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Vince United States Patent No. 5,068,631.

The Vince reference discloses in figure 2 a circuit for removing noise (which inherently includes switching noise because it is a type of high frequency noise) (see col. 1, lines 15-20).

The filter circuit includes a ferrite bead 109 with a bulk capacitor 107-1 connected to ground from the output of the ferrite bead 109.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-8 and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vince.

As noted above, the Vince reference teaches removing noise using a ferrite bead and a capacitor but does not show: a) the capacitor is a tantalum “D case” (claims 2, 6, 10, & 14); b)

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ESR of 0.8Ω (claims 3, 7, 11, and 15); c) ferrite bead resistance of 0.3Ω (claims 4, 8, 12, & 16); nor d) voltage regulator (claims 5 and 10).

Nevertheless, as would have been well known, a "D case" capacitor provides low ESR which is advantageous in filtering unwanted high frequency signals to ground.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to have substituted the well-known, low ESR D case tantalum bulk capacitor in place of the generic bulk capacitor in the filter circuit of Vince because such a modification would have advantageously increased the filter performance of the circuit.

Also, the value of the ESR would have been considered a mere optimization and, therefore, obvious.

With respect to the ferrite bead resistance, it would have been well known that conductive ferrite attenuates additional frequencies compared to non-conductive ferrite.

Therefore, one of ordinary skill in the art would have been motivated to have used conductive ferrite in place of the generic ferrite bead because such a modification would have improved the filter response of the ferrite bead. Additionally, the value of the resistance of the ferrite bead would have been considered a mere optimization.

The Vince reference shows that 5 volts is the voltage of the power supply in figure 2 but does not explicitly teach that the voltage is regulated. Nevertheless, as would have been well known, power supplies conventionally require voltage regulators in order to function properly; therefore, use of a voltage regulator would have been considered obvious.

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Conclusion

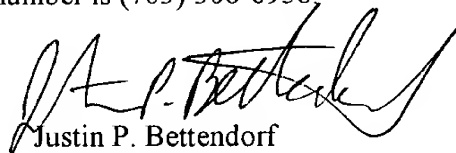
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Pavlovic United States Patent No. 6,152,775 discloses that conductive ferrite attenuates additional frequencies compared to non-conductive ferrites (col. 3, lines 26-30).
- b. Ramakrishnan et al. United States Patent No. 5,812,384 discloses low ESR capacitors are advantageous for removing switching noise from a regulated power supply (abstract and col. 3, lines 38-40).
- c. Lloyd United States Patent No. 3,246,229 discloses in figure 1 a voltage regulator supply with a filter choke inductor 16 and capacitor 17 connected at the output.
- d. Norte et al. United States Patent No. 5,905,417 discloses an inductive filter formed by a conductive ferrite block.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin P. Bettendorf whose telephone number is (703) 308-2780. The examiner can normally be reached on 6:00-3:30 (M-F, 1st Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert C. Pascal can be reached on (703) 308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


Justin P. Bettendorf
Primary Examiner
Art Unit 2817

jpb
January 7, 2002